

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

## PCT

### NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

To:

TROP, PRUNER & HU, P.C.  
Attn. Trop, Timothy N.  
8554 Katy Freeway  
Suite 100  
Houston, TX 77024  
UNITED STATES OF AMERICA

Date of mailing  
(day/month/year)

03/02/2004

Applicant's or agent's file reference

P14251PCT

**FOR FURTHER ACTION**

See paragraphs 1 and 4 below

International application No.

PCT/US 03/09620

International filing date  
(day/month/year)

27/03/2003

Applicant

INTEL CORPORATION

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



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Authorized officer

Jacinta Reddy

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P14251PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 03/09620</b>	International filing date (day/month/year) <b>27/03/2003</b>	(Earliest) Priority Date (day/month/year) <b>03/04/2002</b>
Applicant  <b>INTEL CORPORATION</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/09620

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B81C3/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B81B B81C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BROWN A R ET AL: "Micromachined micropackaged filter banks and tunable bandpass filters", WIRELESS COMMUNICATIONS CONFERENCE, 1997., PROCEEDINGS BOULDER, CO, USA 11-13 AUG. 1997, NEW YORK, NY, USA, IEEE, US, PAGE(S) 193-197 XP010245585 ISBN: 0-7803-4194-5 figure 2	1-10, 21-30
X	EP 0 994 330 A (SENSOROR ASA) 19 April 2000 (2000-04-19) figure 15 --- -/--	11-20



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## ° Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

16 January 2004

Date of mailing of the international search report

03/02/2004

Name and mailing address of the ISA

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Authorized officer

Götz, A

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/09620

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MAYER F ET AL: "Flip-chip packaging for smart MEMS", SMART STRUCTURES AND MATERIALS 1998: SMART ELECTRONICS AND MEMS, SAN DIEGO, CA, USA, 2-4 MARCH 1998, PROCEEDINGS OF THE SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, 1998, SPIE-INT. SOC. OPT. ENG, USA, PAGE(S) 183 - 193 XP001157226 ISSN: 0277-786X figure 11	11
A	----	15
A	MARKUS K W ET AL: "SMART MEMS: FLIP CHIP INTEGRATION OF MEMS AND ELECTRONICS", PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, VOL. 2448, PAGE(S) 82-92 XP001039856 ISSN: 0277-786X figures 1,5	2,3
A	----	5,6
A	DRAYTON R F ET AL: "ADVANCED MONOLITHIC PACKAGING CONCEPTS FOR HIGH PERFORMANCE CIRCUITS AND ANTENNAS", 1996 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST. SAN FRANCISCO, JUNE 17 - 21, 1996, IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST, NEW YORK, IEEE, US, VOL. VOL. 3, PAGE(S) 1615-1618 XP000720652 ISBN: 0-7803-3247-4 page 1615, right-hand column, paragraph 4	7,13,14, 23,24
A	US 2001/055836 A1 (KUNDA TOMOHITO) 27 December 2001 (2001-12-27) figure 3A	7,13,14, 23,24
A	US 6 140 144 A (MASSOUD-ANSARI SONBOL ET AL) 31 October 2000 (2000-10-31) column 7, line 21-29; figure 2F	7,13,14, 23,24
A	HEUNG-WOO PARK ET AL: "Packaging of the RF-MEMS switch", DESIGN, CHARACTERIZATION, AND PACKAGING FOR MEMS AND MICROELECTRONICS II, ADELAIDE, SA, AUSTRALIA, 17-19 DEC. 2001, PROCEEDINGS OF THE SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, 2001, SPIE-INT. SOC. OPT. ENG, USA, PAGE(S) 234 - 243 XP001157230 ISSN: 0277-786X page 239, paragraph 2 -page 240; figure 1 figure 1	15-30

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/09620

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0994330	A	19-04-2000	EP 0994330 A1	19-04-2000
			BR 9904435 A	24-10-2000
			CN 1250871 A	19-04-2000
			JP 2000155030 A	06-06-2000
			KR 2000028948 A	25-05-2000
			US 6319729 B1	20-11-2001
US 2001055836	A1	27-12-2001	JP 2002005951 A	09-01-2002
			DE 10130131 A1	03-01-2002
US 6140144	A	31-10-2000	AU 4053697 A	25-02-1998
			WO 9805935 A1	12-02-1998